



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
National Ocean Service  
Office of Response and Restoration  
Coastal Protection and Restoration Division  
c/o EPA Region X (ECL-117)  
1200 Sixth Avenue  
Seattle, Washington 98101

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Sean Sheldrake  
U.S. Environmental Protection Agency Region 10  
ECL-111  
1200 6<sup>th</sup> Avenue  
Seattle, WA 98101

Dear Sean:

This letter provides **NOAA's comments on the sediment screening levels proposed by Arkema for use in the Engineering Evaluation / Cost Analysis to delineate risk at this site.**

According to EPA's ERA Guidance for Superfund, one of the first steps in a screening-level risk assessment is "the establishment of contaminant exposure levels that represent conservative thresholds for adverse ecological effects." These levels "should represent a no-observed-adverse effect-level (NOAEL) for long-term (chronic) exposures to a contaminant." In lieu of NOAELs for screening sediment evaluation, the more conservative of any of the various sediment quality guidelines can be used; hence, sediment screening should be based on the ERL, TEL, TEC or equivalent values rather than on ERM, PEL, or PEC values. Arkema's proposed approach does not take this approach and does not appear to be consistent with the ERA guidance for screening level risk assessments. While both TEC and PEC values are included in Table 2 (Sediment Samples Summary), the highlighting of contaminants for inclusion in future evaluations is apparently based solely on a comparison to the PEC or equivalent value.

It should be noted that no SLV for tributyltin is presented, yet a value exists in the literature. The NOAA Fisheries Science Center at Montlake in Seattle has developed what they consider to be a safe sediment TBT concentration for the protection of juvenile salmonids; it is based on 2% organic carbon content and is 120 ng/g dw sediment or when normalized for organic carbon it becomes 6000 ng/g organic carbon.

Considering the extremely high concentrations of contaminants present over substantial areas of this site, and the high likelihood that active remediation will be required, it might be worth considering restricting the area of concern for the screening ERA to those areas of lower contamination (e.g. below twice the PEC or some level of contamination based on a PEC quotient). In other words, it may be more efficient to focus resources on screening those areas where uncertainty over ecological risk is higher. This would, of course, require an upfront agreement on the spatial extent of the area presenting the greatest risk. And it would



still be extremely important to understand the nature and severity of contamination within the hottest zone in order to select appropriate remedial alternatives.

One other comment: it is preferable that contaminant concentrations be presented in decimal format rather than scientific notation and to follow the convention of using ppb, µg/kg or equivalent for organics and ppm, mg/kg or equivalent for metals.

NOAA appreciates the opportunity to submit these comments. Please let me know if you have any questions.

Sincerely,

Robert Neely  
NOAA Coastal Resource Coordinator

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